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ABSTRACT

To examine the developmental process of communication competence and the resulting relationship between competence and college success, a longitudinal study of college students was undertaken. In this study, pertinent background factors and measures of communication skills were collected on the same population over the course of a student's college career. Although this longitudinal study is only partially complete, with two of the four years of data having been collected, some indications are already apparent. Results have indicated that, at the end of the first year, high school communication experiences seem to be intricately linked to grade point average (GPA), interaction involvement, communication apprehension, and most importantly, communication competence. However, the number of college classes in speech was not closely related to second-year CCAI scores. Second, the results indicated that communication competence is closely related to verbal ability. Third, results indicated that the best predictor of GPA was the Communication Competency Assessment Instrument (CCAI). Fourth, the predisposition of communication apprehension was also found to be significantly related to communication competence. A major finding of the study is that communication predisposition measures were very stable over the course of the year; students did not change their views of communication apprehension, interaction involvement, or communication abilities over time. An argument is made for more objective methods of assessing communication competence. Self-report measures are too subjective; individuals do not appear to be good judges of their own communication competence. (SRT)

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COMMUNICATION DETERMINANTS OF COLLEGE SUCCESS: AN EXPLORATORY INVESTIGATION

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Abstract

This paper reports the preliminary results of a longitudinal study of college students' communication competence. Results indicate that communication competence is intricately linked to success in college, that high school communication experience seems to lead to higher communication competence ratings, and that communication apprehension is related to perceptions of communication competence. Implications of these results are discussed vis a vis current theories of communication competence and research directions are identified.

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Communication Determinants of College Success: An Exploratory Investigation

Speech communication instruction is founded on an important and fundamental assumption--that instruction actually makes a difference. Instructors assume that through education and experience, communication skills can be improved and knowledge can be enhanced, but the research literature has not yet provided a clear picture of how this occurs (see, for example, Staton-Spicer & Wulff, 1984). We do not have a clear conception of how and by what means communication competence develops in college settings and what effect communication competence has on college success.

Communication researchers and educators have claimed that students must have some minimal level of speaking, listening, classroom management, and interpersonal communication skills for successful completion of a college degree (Rubin, 1982a). By examining the college classroom context, the argument appears to be valid. In lecture classes, students must know how to listen effectively. In classes involving discussion, students must be able to present lucid ideas in an organized fashion. And in all classes, students must be able to ask and answer questions, summarize opinions, distinguish facts from opinions, and interact with their peers and instructors.

We suspect that these skills are improvable. Just as with writing and reading, speaking and listening competence can be improved through instruction (Bassett & Boone, 1983). However, some students do not receive instruction in these areas and others have improved their skills through experiences that are not based on formal instruction. Therefore, one goal of the present investigation is to determine the role of both instruction and experience in communication competence development.

Another assumption inherent in our field is that communication ability is intricately linked to success in the future. In the college environment, success might be measure by the achievement of a degree. Yet, too many students fail to complete their college education. And because of the implied relationship between basic skills and college achievement, some institutions have taken the stance that speaking and listening skills should be taught in all college-level courses (see Roberts, 1983). This may not be a feasible alternative for large universities. However, if we can discover a method by which we can identify those students needing the most help and the role of instruction in skill improvement, we may be able to increase retention and perhaps even the reputation of students who graduate from those colleges. Thus, a second goal of this study is to examine the role of communication in success in college.

Lastly, communication theorists and researchers have been divided on the meaning of the "communication competence" construct. Some have assumed that competence is inherent within individuals (e.g., Cegala, 1981), while others have viewed competence as an impression formed during interaction (e.g., Spitzberg & Cupach, 1984). Measures of communication competence are aligned with one of the two theoretical positions. That is, they are founded on either self-report or on other-report techniques. Two recent studies (Cupach & Spitzberg, 1983; Rubin, 1985) found only a small correlation between the two techniques for one measure of communication competence. Therefore, a third aim of the present investigation is to examine further the relationship between self- and other-report measures of communication competence.

As mentioned above, some researchers have argued that individuals have inherent, relatively stable predispositions or traits that may influence communicative ability. James McCroskey (McCroskey, 1978; McCroskey, Beatty, Kearney, & Plax, 1985) has proposed that communication apprehension is one of those predispositions. Communication apprehension is a tendency to avoid certain or all communicative situations. Researchers have found that high apprehensives score lower on standardized achievement measures and have lower grade point averages (McCroskey & Andersen, 1976) and lower grades in the basic course (Powers & Smythe, 1980). Conversely, Scott and Wheeless (1977) did not find a relationship between communication apprehension and academic achievement or ability to succeed in individualized mastery learning instruction tasks (Scott, Wheeless, Yates & Randolph, 1977). Rubin (1985) has reported a moderate negative relationship between communication apprehension and communication competence indicating that some individuals who are highly apprehensive are seen as less communicatively competent.

Donald Cegala (1984) has offered interaction involvement as another predisposition which, he argues, is a measure of communication competence. Interaction involvement is "the extent to which an individual partakes in a social environment" (Cegala, 1981, p. 112). "The involved communicator continuously integrates thoughts, feelings, and behaviors with the ongoing interaction. . . On the other hand, when individuals are low in interaction involvement they are removed psychologically and communicatively from the ongoing interaction" (Cegala, 1984, p. 321). Therefore, interaction involvement is a tendency people have to involve themselves in a conversation and to be attentive, perceptive and responsive to others.

Individuals may be distinguished as manifesting high or low interaction involvement through the use of the Interaction Involvement Scale. Cegala (1981) has reported that interaction involvement (especially perceptiveness) is intricately linked to the achievement of interpersonal goals. Since we do not yet know if achievement of interpersonal goals is related to college success, the relationship between communication predispositions and communication competence needs to be explored further.

Other researchers have argued that competence is context specific (Spitzberg & Cupach, 1984). Not only does this position mean that competence can and will change from one situation to another, but it means that competence is not an inherent, stable predisposition. It can and will be influenced by the environment, education, experiences, others who are present, and perceived expectations of the situation. Rubin's (1982b) Communication Competency Assessment Instrument is one measure of competence that is context-based. Trained raters use the rating book to form impressions of students' competence in the educational context that is created. By comparing self-report and other-report instruments, we will gain insight into the controversial trait-state issue surrounding the communication competence construct.

Method

To examine the developmental process of communication competence and the resulting relationship between competence and college success, a longitudinal study of college students was undertaken. In this study, pertinent background factors and measures of communication skills were collected on the same population over the course of a student's college career. While this study is only

partially completed at this point in time (two of the four years of data have been collected), analysis of this information gives a preliminary indication of (1) the role of experience, instruction and predispositions in communication competence development, (2) the role of communication experience, predispositions and communication competence in college success, and (3) the relationship between rater- and self-reported perceptions of communication competence.

Procedures

During the first five weeks of the Fall 1984 semester, 50 college freshmen were randomly selected from Speech Communication freshmen orientation classes at a large midwestern university to participate in this study. (We realize the potential danger of using students who were potential majors in the department, but university cooperation was not attained to draw the sample from all freshman students). At this time, students provided information on their past instructional (courses completed) and experiential (extracurricular experiences) backgrounds in speech communication, completed three self-report questionnaires (described below) and had their communication skills assessed via the Communication Competency Assessment Instrument (CCAI) (Rubin, 1982b). Students also signed permission forms to allow for examination of their college records. Through this examination, information was collected on ACT and SAT scores and whether students were required to enroll in developmental (remedial) courses. The original sample consisted of 26 men and 24 women. The mean age of this group was 18.22 years. Ninety percent of this sample were white and 10 percent were black.

One year later, these same students were contacted and were asked to participate in the same study once again. Four students refused and 14 others had left the university. (This 28% attrition rate was lower than the University's 33.7% rate for that particular year). Thirteen women and 19 men reported for testing at the beginning of their sophomore year. Also at this time, college transcripts were examined for the number of oral communication skills courses students had taken during their first year and students' grade-point averages (GPAs).

Measurements and Instruments

Since our open-ended questions asking students to list their extracurricular communication experiences prior to college and during the first year did not allow for amount of time spent in these activities, a decision was made to treat this variable as a measure of the different types of experiences. Therefore, students who had no extracurricular experiences received a score of 1, those with one form of experience (e.g., morning announcements in high school) received a 2, those with two forms (e.g., announcements and camp counselling) received a 3, and so on through 5 which was used for students with four or more types of communicative experiences. For our sample, the mean rating for extracurricular experience was 2.80 ($\underline{SD}$ = 1.36) for high school and 2.22 ($\underline{SD}$ = 1.18) for the first year of college. The number of courses taken by the student were coded in a similar way, with a 1 representing no communication skill (as differentiated from theory or technical) courses, and 5 representing four or more different communication skill courses. The mean rating for skills courses was 1.84 ($\underline{SD}$ = .72) for high school and 1.41 ($\underline{SD}$ = .57) for college. Both researchers independently coded these activities and courses, and disagreements were resolved through discussion.

As indicated above, ACT English, math, and composite scores were gleaned from students' records. Since composite scores are based, in part, on the English portion, only the ACT English scores were used in the analysis. Math ability was not conceptually linked to oral communication ability and was not analyzed. Nine students had taken only the SAT test; to allow for comparison, SAT verbal scores were converted to ACT scores using the college's set of equivalencies. The student's GPA was obtained from transcripts after the completion of the Spring Semester, 1985. Thus, the GPA for two semesters of grades was used in the present analysis (with the exception of one student who was dismissed and one who dropped out presumably because of academic probation at the end of the first semester).

The three self-report measures mentioned above tapped students' general communication apprehension levels, their own view of their communication skill levels, and their general involvement level in conversations with others. These three measures are purportedly indicators of students' ability to communicate with others.

The PRCA-24 (McCroskey, 1982; McCroskey et al., 1985) was used to measure trait communication apprehension. In response to criticism by Porter (1981) and Parks (1980), McCroskey revised the PRCA so that apprehension across various situations could be measured as well as a general apprehension trait. The four situations or contexts are: public speaking, speaking in small groups, speaking in meetings, and speaking in dyads. Each context is represented by six items. McCroskey et al. (1985) have argued for the validity and reliability of this scale. Coefficient alphas have ranged from .93 to .97 and correlations between the PRCA-24 subscale scores and the total score have ranged from .77 (public) to .88 (meeting) (McCroskey, et al., 1985). This instrument is useful for measuring trait apprehension as well as apprehension in specific contexts.

The Interaction Involvement Scale-(IIS) (Cegala, 1981) is composed of 18 items which, in turn, describe three main factors: responsiveness, perceptiveness and attentiveness. Responsiveness refers to an individual's certainty about how to respond in social situations. Perceptiveness is an index of an individual's sensitivity to what meanings ought to and have been applied to another's behavior. Attentiveness measures the extent to which one is aware of the immediate social surrounding. This instrument has been found to be both valid and reliable (Cegala, 1984). Cegala (1981) reported coefficient alphas of .88, .86, and .87 for the responsiveness, perceptiveness and attentiveness subscales, respectively. Most recently (Cegala, personal communication, February 1986), a factor analysis was performed on data from 2,667 subjects. Three items were found to load on two factors. These were eliminated from the present investigation and the resultant responsiveness and perceptiveness scales consisted of six items each and attentiveness was composed of three items. Coefficient alphas (using the total sample of 50 subjects) in this study were .82 for responsiveness, .63 for perceptiveness, and .77 for attentiveness. The alpha for the total 18-item IIS scale was .87, indicating internal consistency.

Rubin's (1982b) Communication Competency Assessment Instrument (CCAI) was used to measure communication competence. Researchers have generally agreed that appropriateness and effectiveness are necessary components of competence (Rubin, 1985; Spitzberg & Cupach, 1984). Likewise, the 19-item CCAI was designed to measure actual communication behaviors that encompass the notion of appropriateness and effectiveness. The CCAI was used by two separate trained raters (one rater was used in 1984 and a different rater in 1985) to evaluate

the communication skills of the sample. These raters were trained by the principal investigator prior to each testing session. In each instance, inter-rater reliability of ninety percent was achieved prior to the assessment session. Each evaluation required about one-half hour of time.

CCAI testing is divided into three sections. The first part asks the subject to present a three minute extemporaneous speech on a topic of his/her choice. During this procedure, six judgments about the student's speaking ability are made (Pronunciation, Facial Expression/Tone of Voice, Speech Clarity, Persuasiveness, Clarity of Ideas, and Ability to Express and Defend a Point of View). An additional question asks the subject to identify nonverbal behaviors an audience can use when they do not understand the message. Next, the subject views a videotaped presentation of class lecture. The material on the videotape provides the criteria for assessing the ability to differentiate between fact and opinion, understand suggestions, identify work necessary to complete an assignment, and summarize. Lastly, subjects are asked to respond in various ways to statements about experiences they have had in an educational environment. These items allow for assessment of ability to perform a social ritual, ask questions, answer questions, express feelings, use a topical order, give accurate directions, describe another's point of view, and describe differences in opinion. A five-point rating scale is used, so scores may range from 19 to 95. The CCAI has demonstrated a coefficient alpha of .78 and inter-rater reliability scores have ranged from .92 to .97 (Rubin, 1985). In this study, the coefficient alpha for the CCAI, based on the 50 first year scores, was .86.

The Communication Competence Self Report (CCSR) index was used to measure self-reported communication competence. This instrument was developed as an alternative method of assessing subjects' skills, although the relationship between the CCSR and the CCAI was found to be minimal (Rubin, 1985). The CCSR consists of 19 items, each item mirroring the items in the CCAI. An alpha of .87 was reported indicating that the-CCSR is an internally consistent self-report measure. In this study the alpha was .75.

Results

To analyze the relationships among the many variables in this study, Pearson correlations were calculated for all pairs of variables. Table 1 presents these correlations for the variables most pertinent to this investigation. Of particular note are the significant relationships between high school communication experiences and grade point average, interaction involvement, communication apprehension and communication competence. Also noteworthy are the correlations between the CCAI and ACT English scores, non-remedial English, high school speech courses, high school experience, and communication apprehension.

Through careful examination of first year CCAI items and ACT English score correlations, we found that eight items were significantly correlated: pronunciation ($r = .35$, $p < .01$), speech clarity ($r = .32$, $p < .05$), clarity of ideas ($r = .42$, $p < .001$), ability to express and defend a point of view ($r = .34$, $p <$ the work to be performed when an assignment is given ($r = .24$, $p < .05$), ability to use a topical order ($r = .32$, $p < .05$), and ability to describe differences of opinion ($r = .26$, $p < .05$). These items seem to be contributing the most to the overall correlation between the CCAI and the ACT English score.

Our first question pertained to the development of communication competence over time. What factors lead to increases in communication competence scores?

Even though, as indicated in Table 1, the CCAI scores obtained during the freshman and sophomore years were highly correlated (r = .68, p < .001), a t-test was performed to see if there were differences between these scores. The results indicated that, for those students who returned the second year, CCAI scores for the first year (M = 65.50) were significantly higher (t (31) = 2.32, p < .05) than second year scores (M = 61.91). Conversely, the self-reported measures were relatively stable over time. As reported in Table 2, the PRCA and IIS scales and subscale means did not change over the course of the year. T-tests were performed on each instrument for the two-year period, and none of the measures changed significantly over time.

To investigate experiences, courses and predispositions which might contribute to higher communication competence scores during students' second year in colleges, second year CCAI scores were regressed onto high school and college communication experiences and courses, communication apprehension, self-reported competence, and the three interaction involvement indexes. Only high school communication experience contributed significantly to the regression equation (R = .53, R^2 = .28, F = 11.06, p < .005). Adding GPA to this group of indicators resulted in no change. In addition, a discriminant analysis indicated that those who agreed to participate the second year (i.e., they were not dismissed, did not drop out, and agreed to participate) had higher GPAs and lower public speaking apprehension. They also had higher CCAI scores, but the correlation with the discriminant function was not significant.

To examine further the role of communication predispositions and experiences in communication competence development, first year CCAI scores were broken into four groups. Students scoring below one standard deviation from the mean (53 or lower) on the CCAI were placed into the lowest group, between one standard deviation and the mean (54 to 64) into the low group, between the mean and one standard deviation above the mean (65 to 75) into the high group, and above one standard deviation (above 75) into the highest group. A series of one-way analyses of variance discovered significant differences between these groups for high school communication experience, high school communication skills courses, college communication experience, public speaking anxiety, communication apprehension, second year communication competence scores, and ACT math and composite scores (see Table 3).

Our second research question pertained to the role of experience, courses and communication predispositions in predicting college success. To answer this question, grade point averages were regressed onto ACT English scores, high school and college speech communication course and experience ratings, first year communication PRCA, CCAI, CCSR, and IIS subscale scores in a stepwise procedure. Only the CCAI added meaningfully to the regression equation (R = who were dismissed during or at the end of the first year of college, four had CCAI scores that were below the theoretical minimal competence level of 57 points.

Our third question concerned the relationship between self-reported and rater-observed communication competence. As is evident in Table 1, the relationship between the CCSR (self-reported competence) and the CCAI (rater-observed competence) was weak. In addition, interaction involvement was not significantly related to rater-observed scores on the CCAI but was significantly related to self-report scores on the CCSR. The PRCA and the IIS were significantly correlated for both years of data, as were the PRCA and the CCAI; the CCSR was also significantly correlated with the PRCA. This complex relationship

seems to indicate that the observer of competence makes quite a difference. The CCAI and the CCSR measure the same traits, yet people had views of their abilities which differed from the views of trained raters. The self-report measures were all strongly related.

Discussion

The main goal of this investigation was to discover what communication experiences and skills might be related to college success. Although this longitudinal study is only half completed at this time, some indications are already apparent.

First, as the results have indicated, high school experience seems to be intricately linked to GPA at the end of the first year of college, interaction involvement, communication apprehension and, most importantly, communication competence. We should note that we had no information on the length of time students had spent in these various experiences, but the sheer number of different experiences appear to have had a positive effect on their ability to complete college classes successfully and on their ability to communicate with others. This close link between experience and CCAI scores held for the second year also; high school experience was the only significant predictor of sophomore level communication competence. These results mirror those reported by Rubin (1982a) previously where significant differences on CCAI scores for those with a great amount of speaking experience outside of class and those without any experience or those with only courses in speech were found.

This finding supports the notion that the development of a behavioral repertoire is essential to the development of communication competence and that experience is vital to basic skill development (see, for example, Allen & Brown, 1976). The number of high school classes was also closely related to competence development in this study, however this variable was not as predictive of college-level communication competence as experience was. Eighteen of the fifty students had no high school course, and 23 students indicated that they had one course (or partial training in English classes). Rubin (1982a) previously found that those students who had taken speech communication classes also had higher scores on the CCAI than those who had no formal training. We must keep in mind, though, that taking communication skills courses does not mean that students do well in them. Therefore, we would suspect that given more formal training during elementary and high school years and a measure of success in skills courses, the relationship between formal instruction and communication competence would be even more firmly established.

However, the number of college classes in speech was not closely related to second-year CCAI scores. This may be related to the lack of choice students experience during the first year of college (especially those with a prescribed program of developmental courses). It is also a policy of the university to advise students enrolled in developmental English, mathematics, and reading classes into courses not requiring a lot of reading (e.g., speech fundamentals). Once grades in these classes are analyzed, a clearer picture of the role of college communication skills classes may emerge. Another possible interpretation may be that a latency effect could be in operation during college. The role of instruction and communication experience in college may be more interpretable later on in this longitudinal study.

Second, the results of this study indicated that communication competence, as measured by the CCAI, is closely related to verbal ability (ACT English scores and not being required to take remedial English classes). In this study, CCAI correlations with the ACT English test were higher in the second year than in the first, possibly because those who had low ACT scores either dropped out of college or were dismissed.

In addition, the communication competence items which correlated most highly with the ACT English scores--pronunciation, speech clarity, clarity of ideas, express and defend a point of view, understand suggestions, identify work to be performed on an assignment, use of a topical order, and describe differences of opinion--are, generally, a result of students' having mastered the components of effective communication and can be evidenced in both written and oral communication. Similarly, previous research (Rubin & Henzl, 1984) has found that high and low verbal ability individuals differed significantly on pronunciation, speech clarity, and ability to use a topical order.

Third, to answer our question about the role of communication skills and predispositions in college success, the multiple regression analysis indicated that the best predictor of GPA was the CCAI. It may be that communication skills are essential to college success (as well as other factors) and the CCAI taps those skills that are necessary for effective learning. Future research should examine this relationship more closely and, as Spitzberg and Cupach (1984) have suggested, link skill to motivation to learn and knowledge gained.

Fourth, the communication predisposition of communication apprehension was also found to be significantly related to communication competence. In fact, the relationship is even stronger than that reported in previous research (Rubin, 1985). Conceptually, students who are more apprehensive should not be seen as more competent, especially when the competence measure includes both a public and dyadic context. This finding lends support to the notion that predispositions can influence communication behavior. In addition, high apprehensives were found to score lower on the ACT English test, a standardized achievement measure, but they didn't have significantly lower GPAs, as McCroskey and Andersen (1976) found previously. However, interaction involvement total scores and subscale scores were not related to the communication competence measure used in this study. In examining the relationship of the IIS to other predispositional measures, we found that, as Cegala, Savage, Brunner, and Conrad (1982) had, interaction involvement was negatively correlated with communication apprehension. Those who were more involved were also less apprehensive.

One major finding in this study is that the communication predisposition measures, possibly because they are of the self-report variety, were very stable over the course of the year. The students in this study did not change their views of the communication apprehension, interaction involvement or communication abilities over time. In examining the relationship of the IIS to other predispositional measures, we found, as Cegala, Savage, Brunner, and Conrad (1982) had, interaction involvement was negatively correlated with communication apprehension. Those who were more involved were also less apprehensive. In addition both the IIS and the PRCA were related to the CCSR. Since these measures all tap self-perceptions of communication ability, we would expect them to be stable over time. That is, the measures are examining the same communication qualities and rely on individuals' cognitive and affective judgments of self.

Since the CCAI measures communication competence in a specific context, other factors are likely to influence an individual's performance and make stability over time an unexpected result. The vantage point for CCAI assessment is the observer's. The individual's behavior is evaluated and is more likely to change over the course of a year. Actually, both the CCAI and GPA (which were significantly correlated) are based on an observer's viewpoint. Ratings of communication competence with the CCAI did indeed change from the first year to the second. In fact, they decreased from the first year of college to the second. This was certainly surprising, but there are four possible interpretations.

First, with the loss of 18 students from year one to year two, those who did not participate could have had higher scores than those who remained in the sample. In actuality, those not returning ($\underline{M}$ = 62.61) had lower scores than those who returned ($\underline{M}$ = 65.50). One item in the CCAI did differentiate the groups. Those who didn't return ($\underline{M}$ = 1.89) scored significantly lower ($\underline{t}$ (46) = 2.54, $\underline{p} < .05$) than those who returned ($\underline{M}$ = 2.56) on the ability to give directions. Results of a discriminant analysis (Eigenvalue = .61, R_c = .62, Wilk's Lambda = .62, df = 6, $\underline{p} < .05$) on those who returned and those who were dismissed from college for low grades indicated that 100% of the dismissed group could be predicted (and 84.4% of the non-dismissed group) by two CCAI items. Those who were dismissed were significantly less persuasive, yet their ideas were more clearly presented. T-tests indicated that those who did not return indicated significantly higher ($\underline{t}$ (42) = 2.25, $\underline{p} < .05$) levels of public communication apprehension ($\underline{M}$ = 20.0) than those who did return the second year ($\underline{M}$ = 16.81).

Second, it is possible that the first-year rater used more stringent standards than those used by the rater during the second year. Since both raters were trained by the principal investigator and achieved inter-rater reliability with the investigator (.90 or higher) prior to the data collection periods, it is doubtful that rater error would account for such differences.

The third possible interpretation is that a lack of skill practice and communication experience during the period of a year might result in lower levels of communication competence. Those who had fewer high school courses and high school and college communication experiences did tend to score lower on the CCAI. It is possible that over the course of a 4-year college education, these experiences and courses might be identifiable as contributors to higher competence levels. The continuation of this study and examination of course grades over the period of four years may shed more light on the development of communication competence during college.

The fourth possible interpretation relates to the state/trait debate in communication competence. While predispositions, particularly those of the self-report variety are and have been found to be relatively stable over time, behaviors are often influenced by external environmental factors or the context. While the gender of the CCAI rater and the CCAI procedure was held constant from year one to year two, other factors changed. The naive freshmen who volunteered the first year blossomed into sophisticated sophomores the second year. This maturation results in a need for the investigators to cajole, coax, and beg the students to return for testing. Feelings of resentment and anxiety may have been higher the second year since students knew exactly the requirements of the testing situation. If anxiety was indeed higher, the CCAI scores could be expected to be lower. However, this anxiety level would not be perceptible on

the PRCA since the PRCA is a measure of generalized communication apprehension rather than situational apprehension. We expect that next year's CCAI scores will more closely resemble the sophomore year scores or that they will improve.

One last observation concerns the best method of assessing communication competence. While self-report instruments are somewhat related to perceptions of competence and are consistent over time, they appear to be measuring more of an attitude that individuals have about their skills rather than an objective view of how these individuals appear to others. The CCAI was only weakly related to the CCSR during the first and second years. The range of CCSR scores during the first (48-66) and second (53-67) years was not comparable to the range for the CCAI during the first (33-83) and second (47-84) years indicating that students seemed to over- or under-estimate their abilities to communicate with others. Considering the difference in range of CCAI and CCSR scores for the first and second years, individuals do not appear to be good judges of their own communication competence.

As indicated in earlier research (Rubin, 1985), a self-report measure of competence may not be the most valid method of measuring communication competence. Cupach and Spitzberg (1983) found that situational measures of communication competence are more closely related to communication outcomes than were dispositional measures and that situational and dispositional measures, while similar to measures of the same type, were not substantially correlated with each other. "In the case of communication competence, self-report scales may be very useful if we want to know how communicatively competent a person thinks he/she is. If we want to know how competent the person actually is, such scales may be totally useless, because the person very likely does not know" (McCroskey, 1986, p. 3).

Self-report measures, while valid as indicators of self-perceived intentions, attitudes, and predispositions, are highly affected by social desirability responses and the inability to perceive one's strengths and weaknesses. The very nature of communication necessitates dyadic interaction. Therefore it seems appropriate to measure communication ability via the perceptions of others. As Spitzberg and Cupach (1984) have strongly argued, communication competence is an impression formed about another's communication ability while predispositions are impressions formed by individuals about themselves. We suggest that while predispositions are best measured through self-report instruments, communication ability is best measured through another's impression of appropriateness and effectiveness.

Freshman orientation programs, developmental communication classes, communication across the curriculum (Roberts, 1983), and assessment centers (see Rubin, 1983) may be ideal places for the assessment of freshman students' communication skills to provide for better counselling during the freshman year. Future research (and the continuation of this project) must examine more closely the impact of communication instruction in the development of communication competence. Also, we must identify those communication abilities which are essential to successful accomplishment of students' goals.

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Table 1

Summary of Pearson Correlations

	ACT ENGLISH	REMEDIAL ENGLISH	H.S. COURSES	COLLEGE COURSES	H.S. EXPER.	COLLEGE EXPER.	GPA	CCSR-1	CCSR-2	IIS-1	IIS-2	PRCA-1	PRCA-2	CCAI-1
NON-REMEDIAL ENGLISH	.31*	1.00												
H. S. COURSES	.18	.21	1.00											
COLLEGE COURSES	-.26*	-.17	-.04	1.00										
H. S. EXPERIENCE	.30*	.10	.31*	-.02	1.00									
COLLEGE EXPERIENCE	.31*	.08	.08	-.18	.59***	1.00								
GPA	.29*	-.03	.10	-.12	.35*	.29	1.00							
CCSR-1	.29*	.17	-.40**	-.07	.30*	.38*	.12	1.00						
CCSR-2	.09	-.08	.09	.20	.19	.32*	.09	.58***	1.00					
IIS-1	.22	-.03	.05	.00	.25*	.26	-.02	.60***	.62***	1.00				
IIS-2	-.01	-.29	.14	.17	.33*	.27	.03	.41**	.75***	.61***	1.00			
PRCA-1	-.24*	.10	-.17	-.00	-.34**	-.25	-.25	-.60***	-.75***	-.68***	-.63***	1.00		
PRCA-2	-.08	-.06	-.13	-.15	-.26	-.12	-.22	-.44**	-.75***	-.45**	-.61***	.82***	1.00	
CCAI-1	.39**	.47***	.36**	-.07	.42***	.33*	.27*	.25*	-.32*	.08	.33*	-.41**	-.52***	1.00
CCAI-2	.53***	.44**	.41**	-.11	.52***	.47**	.49**	.38*	.35*	.27	.24	-.42**	-.43**	.68***

Note. Higher scores on the PRCA indicate higher apprehension levels.

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 2

Year 1 and Year 2 Means, Standard Deviations, T-tests, and Correlations

	YEAR 1		YEAR 2		t		
	Mean	S.D.	Mean	S.D.	(df=31)	p	r
PRCA TOTAL	58.09	15.86	58.91	15.99	-.48	.63	.82
PRCA-GROUP	13.88	4.38	13.56	4.70	.51	.61	.71
PRCA-MEETING	14.50	4.68	14.88	4.49	-.57	.57	.68
PRCA-DYAD	13.22	3.96	13.31	4.26	-.14	.89	.57
PRCA-PUBLIC	16.81	5.42	17.16	5.29	-.59	.56	.81
IIS TOTAL (18 items)	88.47	14.06	89.41	14.22	-.43	.67	.61
IIS-PERCEPTIVENESS (6 items averaged)	5.19	0.69	5.20	0.77	.13	.90	.56
IIS-ATTENTIVENESS (3 items averaged)	4.20	1.39	4.18	1.22	.10	.92	.58
IIS-RESPONSIVENESS (6 items averaged)	4.79	1.09	4.95	1.03	-.91	.37	.56
CCSR TOTAL	69.97	7.09	71.28	8.41	-1.03	.31	.58
CCAI TOTAL	65.50	12.00	61.91	8.14	2.32	.03	.68

Note. All correlations are significant beyond the .001 level

Table 3

Analysis of Variance Summary Table

	F	p	CCAI GROUPS Lowest (33-53)	Low (54-64)	High (65-75)	Highest (75-83)
High School Experience	2.88	.05	1.88	2.53	3.19	3.44
High School Courses	4.49	.01	1.13abc	1.94a	1.88b	2.22c
College Comm. Experience	7.42	.001	1.80a	1.30b	3.20ab	2.43
PRCA Public Speaking	3.40	.05	21.00a	18.53	18.25	13.67a
PRCA Total	3.11	.05	66.50a	61.41	59.56	47.89a
CCAI - 2nd year scores	8.64	.001	52.60ab	58.20c	67.30ac	66.14b

Note. Means sharing a common subscript are significantly ($p < .05$) different using Tukey's post-hoc test.